What is Bootstrap?

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

What is Responsive Web Design?



Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Bootstrap History

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter, and released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub!

Bootstrap Versions

This tutorial follows **Bootstrap 4**, which was released in 2018, as an upgrade to <u>Bootstrap 3</u>, with new components, faster stylesheetc, more responsiveness, etc.

<u>Bootstrap 5</u> (released 2021) is the newest version of <u>Bootstrap</u>; It supports the latest, stable releases of all major browsers and platforms. However, Internet Explorer 11 and down is not supported.

The main differences between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to <u>JavaScript</u> instead of <u>jQuery</u>.

Note: <u>Bootstrap 3</u> and Bootstrap 4 is still supported by the team for critical bugfixes and documentation changes, and it is perfectly safe to continue to use them. However, new features will NOT be added to them.

Why Use Bootstrap?

Advantages of Bootstrap:

- Easy to use: Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- · Responsive features: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- Mobile-first approach: In Bootstrap 3, mobile-first styles are part of the core framework
- Browser compatibility: Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Safari, and Opera)

Where to Get Bootstrap?

There are two ways to start using Bootstrap on your own web site.

You can:

- Download Bootstrap from getbootstrap.com
- Include Bootstrap from a CDN

Downloading Bootstrap

If you want to download and host Bootstrap yourself, go to getbootstrap.com, and follow the instructions there.

Bootstrap CDN

If you don't want to download and host Bootstrap yourself, you can include it from a CDN (Content Delivery Network).

MaxCDN provide CDN support for Bootstrap's CSS and JavaScript. Also include jQuery:

MaxCDN:

```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet"
href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.min.css">

<!-- jQuery library -->
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js"></script>

<!-- Latest compiled JavaScript -->
<script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/js/bootstrap.min.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script><
```

One advantage of using the Bootstrap CDN:



Many users already have downloaded Bootstrap from MaxCDN when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

2. Bootstrap 4 is mobile-first

Bootstrap 4 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

3. Containers

Bootstrap 4 also requires a containing element to wrap site contents.

There are two container classes to choose from:

- The .container class provides a responsive fixed width container
- 2. The .container-fluid class provides a full width container, spanning the entire width of the viewport

Bootstrap 4 Containers





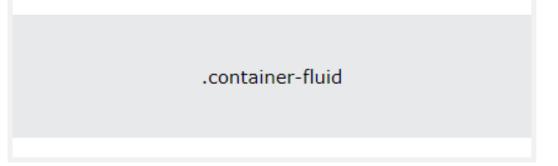
Containers

You learned from the previous chapter that Bootstrap requires a containing element to wrap site contents.

Containers are used to pad the content inside of them, and there are two container classes available:

- 1. The .container class provides a responsive fixed width container
- 2. The .container-fluid class provides a full width container, spanning the entire width of the viewport

.container



Fixed Container

Use the .container class to create a responsive, fixed-width container.

Note that its width (max-width) will change on different screen sizes:

Extra small		Small Medium		Large	Extra large	
<576px		≥576px ≥768px		≥992px	≥1200px	
max-width	100%	540px	720px	960px		

Open the example below and resize the browser window to see that the container width will change at different breakpoints:

```
<div class="container">
    <h1>My First Bootstrap Page</h1>
    This is some text.
</div>
```

Fluid Container

Use the .container-fluid class to create a full width container, that will always span the entire width of the screen (width is always 100%):

Example

```
<div class="container-fluid">
  <h1>My First Bootstrap Page</h1>
  This is some text.
</div>
```

Container Padding

By default, containers have 15px left and right padding, with no top or bottom padding. Therefore, we often use **spacing utilities**, such as extra padding and margins to make them look even better. For example, .pt-3 means "add a top padding of 16px":

Example

<div class="container pt-3"></div>

Container Border and Color

Other utilities, such as borders and colors, are also often used together with containers:

Example

My First Bootstrap Page

This container has a border and some extra padding and margins.

My First Bootstrap Page

This container has a dark background color and a white text, and some extra padding and margins.

My First Bootstrap Page

This container has a dark background color and a white text, and some extra padding and margins.

My First Bootstrap Page

This container has a blue background color and a white text, and some extra padding and margins.

```
<div class="container p-3 my-3 border"></div>
<div class="container p-3 my-3 bg-dark text-white"></div>
<div class="container p-3 my-3 bg-primary text-white"></div>
```

Bootstrap 4 Grids





Bootstrap 4 Grid System

Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4			span 4			span 4					
span 4				span 8							
span 6				span 6							
span 12											

The grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

Make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available columns).

Grid Classes

The Bootstrap 4 grid system has five classes:

- .col- (extra small devices screen width less than 576px)
- .col-sm- (small devices screen width equal to or greater than 576px)
- .col-md- (medium devices screen width equal to or greater than 768px)
- .col-lg- (large devices screen width equal to or greater than 992px)
- .col-xl- (xlarge devices screen width equal to or greater than 1200px)

The classes above can be combined to create more dynamic and flexible layouts.

Tip: Each class scales up, so if you wish to set the same widths for sm and md, you only need to specify sm.

Basic Structure of a Bootstrap 4 Grid

The following is a basic structure of a Bootstrap 4 grid:

Basic Structure of a Bootstrap 4 Grid

The following is a basic structure of a Bootstrap 4 grid:

```
<!-- Control the column width, and how they should appear on different devices -->
<div class="row">
  <div class="col-*-*"></div>
  <div class="col-*-*"></div>
</div>
<div class="row">
  <div class="col-*-*"></div>
 <div class="col-*-*"></div>
  <div class="col-*-*"></div>
</div>
<!-- Or let Bootstrap automatically handle the layout -->
<div class="row">
  <div class="col"></div>
  <div class="col"></div>
  <div class="col"></div>
</div>
```

First example: create a row (<div class="row">). Then, add the desired number of columns (tags with appropriate .col-*-* classes). The first star (*) represents the responsiveness: sm, md, lg or xl, while the second star represents a number, which should add up to 12 for each row.

Second example: instead of adding a number to each col, let bootstrap handle the layout, to create equal width columns: two "col" elements = 50% width to each col. three cols = 33.33% width to each col. four cols = 25% width, etc. You can also use .col-sm md lg xl to make the columns responsive.

Below we have collected some examples of basic Bootstrap 4 grid layouts.

Three Equal Columns

.col	.col	.col
------	------	------

The following example shows how to create three equal-width columns, on all devices and screen widths:

Example

```
<div class="row">
    <div class="col">.col</div>
    <div class="col">.col</div>
    <div class="col">.col</div>
    </div>
```

Responsive Columns

```
.col-sm-3 .col-sm-3 .col-sm-3
```

The following example shows how to create four equal-width columns starting at tablets and scaling to extra large desktops. On mobile phones or screens that are less than 576px wide, the columns will automatically stack on top of each other:

Example

```
<div class="row">
     <div class="col-sm-3">.col-sm-3</div>
     <div class="col-sm-3">.col-sm-3</div>
     <div class="col-sm-3">.col-sm-3</div>
     <div class="col-sm-3">.col-sm-3</div>
     <div class="col-sm-3">.col-sm-3</div>
     </div>
```

Two Unequal Responsive Columns

```
.col-sm-4 .col-sm-8
```

The following example shows how to get two various-width columns starting at tablets and scaling to large extra desktops:

Example

```
<div class="row">
  <div class="col-sm-4">.col-sm-4</div>
  <div class="col-sm-8">.col-sm-8</div>
</div>
```

Bootstrap 4 Text/Typography





Bootstrap 4 Default Settings

Bootstrap 4 uses a default font-size of 16px, and its line-height is 1.5.

The default font-family is "Helvetica Neue", Helvetica, Arial, sans-serif.

In addition, all elements have margin-top: 0 and margin-bottom: 1rem (16px by default).

< h1> - < h6>

Bootstrap 4 styles HTML headings (<h1> to <h6>) with a bolder font-weight and an increased font-size:

Display Headings

Display headings are used to stand out more than normal headings (larger font-size and lighter font-weight), and there are four classes to choose from: .display-1, .display-2, .display-3, .display-4

Example

Display 1 Display 2 Display 3

Bootstrap 4 Colors

⟨ Previous

Next >

Text Colors

Bootstrap 4 has some contextual classes that can be used to provide "meaning through colors".

```
The classes for text colors are: .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body (default body color/often black) and .text-light:
```

Example

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

Background Colors

```
The classes for background colors are: .bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light.
```

Note that background colors do not set the text color, so in some cases you'll want to use them together with a .text-* class.

Example

I design a control of the control of the first

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary background color.

Dark grey background color.

Bootstrap 4 Navigation Bar



Next >

Navigation Bars

A navigation bar is a navigation header that is placed at the top of the page:



Basic Navbar

With Bootstrap, a navigation bar can extend or collapse, depending on the screen size.

A standard navigation bar is created with the .navbar class, followed by a responsive collapsing class: .navbar-expand-x1|lg|md|sm (stacks the navbar vertically on extra large, large, medium or small screens).

To add links inside the navbar, use a
 element with class="navbar-nav". Then add elements with a .nav-link class:

```
<!-- A grey horizontal navbar that becomes vertical on small screens -->
<nav class="navbar navbar-expand-sm bg-light">
 <!-- Links -->
 <a class="nav-link" href="#">Link 1</a>
  <a class="nav-link" href="#">Link 2</a>
  <a class="nav-link" href="#">Link 3</a>
  </nav>
```

Vertical Navbar

Remove the .navbar-expand-x1|1g|md|sm class to create a vertical navigation bar:

```
Link 1
Link 2
Link 3
```

```
<!-- A vertical navbar -->
<nav class="navbar bg-light">
```

Centered Navbar

Add the .justify-content-center class to center the navigation bar.

The following example will center the navigation bar on medium, large and extra large screens. On small screens it will be displayed vertically and left-aligned (because of the .navbar-expand-sm class):

Link 1 Link 2 Link 3

Example

```
<nav class="navbar navbar-expand-sm bg-light justify-content-center">
...
</nav>
```

Colored Navbar

Active Link Link Disabled

Active Link Link Disabled

Active Link Link Disabled

Use any of the .bg-color classes to change the background color of the navbar (.bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light)

Tip: Add a white text color to all links in the navbar with the .navbar-dark class, or use the .navbar-light class to add a black text color.

```
<!-- Grey with black text -->
<nav class="navbar navbar-expand-sm bg-light navbar-light">
 <a class="nav-link" href="#">Active</a>
  <a class="nav-link" href="#">Link</a>
  <a class="nav-link" href="#">Link</a>
  <a class="nav-link disabled" href="#">Disabled</a>
  </nav>
<!-- Black with white text -->
<nav class="navbar navbar-expand-sm bg-dark navbar-dark">...</nav>
```

Brand / Logo

The .navbar-brand class is used to highlight the brand/logo/project name of your page:

```
Logo Link 1 Link 2 Link 3
```

Example

Try it Yourself »

When using the navbar-brand class on images, Bootstrap 4 will automatically style the image to fit the navbar vertically.



Example

Collapsing The Navigation Bar

Navbar



Very often, especially on small screens, you want to hide the navigation links and replace them with a button that should reveal them when clicked on.

To create a collapsible navigation bar, use a button with class="navbar-toggler", data-toggle="collapse" and data-target="#thetarget". Then wrap the navbar content (links, etc) inside a div element with class="collapse navbar-collapse", followed by an id that matches the data-target of the button: "thetarget".

```
<nav class="navbar navbar-expand-md bg-dark navbar-dark">
    <!-- Brand -->
    <a class="navbar-brand" href="#">Navbar</a>
<!-- Toggler/collapsibe Button -->
    <button class="navbar-toggler" type="button" data-toggle="collapse" data-taggle="#collapsibleNavbar">
```

```
<nav class="navbar navbar-expand-md bg-dark navbar-dark">
 <!-- Brand -->
 <a class="navbar-brand" href="#">Navbar</a>
 <!-- Toggler/collapsibe Button -->
 <button class="navbar-toggler" type="button" data-toggle="collapse" data-</pre>
target="#collapsibleNavbar">
   <span class="navbar-toggler-icon"></span>
 </button>
 <!-- Navbar links -->
 <div class="collapse navbar-collapse" id="collapsibleNavbar">
   <a class="nav-link" href="#">Link</a>
     <a class="nav-link" href="#">Link</a>
     <a class="nav-link" href="#">Link</a>
     </div>
</nav>
```

Navbar With Dropdown

```
Logo Link 1 Link 2 Dropdown link *
```

Navbars can also hold dropdown menus:

```
<nav class="navbar navbar-expand-sm bg-dark navbar-dark">
 <!-- Brand -->
 <a class="navbar-brand" href="#">Logo</a>
 <!-- Links -->
 <a class="nav-link" href="#">Link 1</a>
   <a class="nav-link" href="#">Link 2</a>
   <!-- Dropdown -->
   <a class="nav-link dropdown-toggle" href="#" id="navbardrop" data-toggle="dropdown">
      Dropdown link
    </a>
    <div class="dropdown-menu">
      <a class="dropdown-item" href="#">Link 1</a>
      <a class="dropdown-item" href="#">Link 2</a>
      <a class="dropdown-item" href="#">Link 3</a>
    </div>
```

Fixed Navigation Bar

Logo Link Link

Top Fixed Navbar

A fixed navigation bar stays visible in a fixed position (top or bottom) independent of the page scroll.

Scroll this page to see the effect

The navigation bar can also be fixed at the top or at the bottom of the page.

A fixed navigation bar stays visible in a fixed position (top or bottom) independent of the page scroll.

The .fixed-top class makes the navigation bar fixed at the top:

Example

```
<nav class="navbar navbar-expand-sm bg-dark navbar-dark fixed-top">
    ...
</nav>
```

Try it Yourself »

Use the .fixed-bottom class to make the navbar stay at the bottom of the page:

Bottom Fixed Navbar

A fixed navigation bar stays visible in a fixed position (top or bottom) independent of the page scroll.

Scroll this page to see the effect

Logo Link Link

Use the .sticky-top class to make the navbar fixed/stay at the top of the page when you scroll past it. Note:
This class does not work in IE11 and earlier (will treat it as position:relative).

Sticky Navbar

A sticky navigation bar stays fixed at the top of the page when you scroll past it.

Scroll this page to see the effect. **Note:** sticky-top does not work in IE11 and earlier.

Logo Link Link

Some example text. Some example text. Some example text. Some example text. Some example text.

```
<nav class="navbar navbar-expand-sm bg-dark navbar-dark sticky-top">
...
</nav>
```

Bootstrap 4's Default Settings

Form controls automatically receive some global styling with Bootstrap:

All textual <input>, <textarea>, and <select> elements with class .form-control have a width of 100%.

Bootstrap 4 Form Layouts

Bootstrap provides two types of form layouts:

- · Stacked (full-width) form
- · Inline form

Submit

Bootstrap 4 Stacked Form

Email: Enter email Password: Enter password Remember me

The following example creates a stacked form with two input fields, one checkbox, and a submit button.

Add a wrapper element with .form-group, around each form control, to ensure proper margins:

```
<form action="/action page.php">
  <div class="form-group">
   <label for="email">Email address:</label>
   <input type="email" class="form-control" placeholder="Enter email" id="email">
 </div>
  <div class="form-group">
   <label for="pwd">Password:</label>
   <input type="password" class="form-control" placeholder="Enter password" id="pwd">
  </div>
  <div class="form-group form-check">
   <label class="form-check-label">
      <input class="form-check-input" type="checkbox"> Remember me
   </label>
 </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```

Form Row/Grid

You can also use columns (.col) to control the width and alignment of form inputs without using spacing utilities.

Just remember to put them inside a .row container.

In the example below, we use two columns that will appear side by side. You will learn much more about columns and rows in the <u>Bootstrap Grids Chapter</u>.

Enter email

Enter password

Bootstrap 4 Form Inputs





Supported Form Controls

Bootstrap supports the following form controls:

- input
- textarea
- checkbox
- radio
- select

Bootstrap Textarea

Comment:			
			,

The following example contains a textarea:

```
<div class="form-group">
    <label for="comment">Comment:</label>
    <textarea class="form-control" rows="5" id="comment"></textarea>
    </div>
```

Bootstrap Checkboxes

- Option 1
- ✓ Option 2
- Option 3

Checkboxes are used if you want the user to select any number of options from a list of preset options.

The following example contains three checkboxes. The last option is disabled:

```
<div class="form-check">
  <label class="form-check-label">
    <input type="checkbox" class="form-check-input" value="">Option 1
  </label>
</div>
<div class="form-check">
  <label class="form-check-label">
    <input type="checkbox" class="form-check-input" value="">Option 2
  </label>
</div>
<div class="form-check">
  <label class="form-check-label">
    <input type="checkbox" class="form-check-input" value="" disabled>Option 3
  </label>
</div>
```

Bootstrap Radio Buttons

- Option 1
- Option 2
- Option 3

Radio buttons are used if you want to limit the user to just one selection from a list of preset options.

The following example contains three radio buttons. The last option is disabled:

Bootstrap Select List

Select list (select one):

-

Example

```
<div class="form-group">
    <label for="sel1">Select list:</label>
    <select class="form-control" id="sel1">
        <option>1</option>
        <option>2</option>
        <option>3</option>
        <option>4</option>
        </option>
        </div>
```

Form Control Sizing

Change the size of the form control with .form-control-sm or .form-control-lg:

Small form control

Default form control

Large form control

Example

```
<input type="text" class="form-control form-control-sm">
<input type="text" class="form-control form-control">
<input type="text" class="form-control form-control-lg">
```

Bootstrap 4 Input Groups

The .input-group class is a container to enhance an input by adding an icon, text or a button in front or behind the input field as a "help text".

Use .input-group-prepend to add the help text in front of the input, and .input-group-append to add it behind the input.

At last, add the .input-group-text class to style the specified help text.

@ Username

Your Email @example.com

```
<form>
  <div class="input-group mb-3">
    <div class="input-group-prepend">
      <span class="input-group-text">@</span>
    </div>
    <input type="text" class="form-control" placeholder="Username">
  </div>
  <div class="input-group mb-3">
    <input type="text" class="form-control" placeholder="Your Email">
    <div class="input-group-append">
      <span class="input-group-text">@example.com</span>
    </div>
  </div>
</form>
```

Input Group Sizing

Use the .	<pre>input-group-sm class for small input groups and .input-group-lg for large inputs groups:</pre>
Small	
Default	
Large	

```
<form>
 <div class="input-group mb-3 input-group-sm">
     <div class="input-group-prepend">
       <span class="input-group-text">Small</span>
   </div>
    <input type="text" class="form-control">
 </div>
</form>
<form>
 <div class="input-group mb-3">
    <div class="input-group-prepend">
      <span class="input-group-text">Default</span>
   </div>
   <input type="text" class="form-control">
 </div>
</form>
<form>
 <div class="input-group mb-3 input-group-lg">
    <div class="input-group-prepend">
      <span class="input-group-text">Large</span>
   </div>
   <input type="text" class="form-control">
 </div>
</form>
```

Bootstrap 4 Icons

< Previous

Next >

Bootstrap 4 Icons

Bootstrap 4 does not have its own icon library (<u>Glyphicons from Bootstrap 3</u> are not supported in BS4). However, there are many free icon libraries to choose from, such as Font Awesome and Google Material Design Icons.

To use Font Awesome icons, add the following to your HTML page (No downloading or installation is required):

```
k rel="stylesheet" href="https://use.fontawesome.com/releases/v5.7.0/css/all.css"
integrity="sha384-lZN37f5QGtY3VHgisS14W3ExzMWZxybE1SJSEsQp9S+oqd12jhcu+A56Ebc1zFSJ"
crossorigin="anonymous">
```

Then, add the name of the icon class to any inline HTML element (like <i> or):

Then, add the name of the icon class to any inline HTML element (like <i> or):

Example

```
<i class="fas fa-cloud"></i>
<i class="fas fa-coffee"></i>
<i class="fas fa-car"></i>
<i class="fas fa-file"></i>
<i class="fas fa-file"></i>
<i class="fas fa-bars"></i>
```

Font Awesome 4 Icons

To use the Font Awesome 4 icons, add the following line inside the <head> section of your HTML page:

Note: No downloading or installation is required!

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-</pre>
awesome.min.css">
</head>
<body>
<i class="fa fa-cloud"></i></i></or>
<i class="fa fa-heart"></i></i></or>
<i class="fa fa-car"></i></i>
<i class="fa fa-file"></i></i>
<i class="fa fa-bars"></i></i></or>
</body>
</html>
```

Bootstrap 3 Icons

To use the Bootstrap 3 glyphicons, add the following line inside the <head> section of your HTML page:

Note: No downloading or installation is required!

Example

</body>

</html>

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
</head>
<body>
<i class="glyphicon glyphicon-cloud"></i>
<i class="glyphicon glyphicon-remove"></i>
<i class="glyphicon glyphicon-user"></i>
<i class="glyphicon glyphicon-envelope"></i>
<i class="glyphicon glyphicon-envelope"></i>
<i class="glyphicon glyphicon-envelope"></i>
<i class="glyphicon glyphicon-thumbs-up"></i>

Note: Glyphicons are not supported in Bootstrap 4.
```

For more information about Bootstrap 3 and Glyphicons, visit our Bootstrap 3 Tutorial.

Google Icons

To use the Google icons, add the following line inside the <head> section of your HTML page:

Note: No downloading or installation is required!

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="https://fonts.googleapis.com/icon?family=Material+Icons">
</head>
<body>
<i class="material-icons">cloud</i>
<i class="material-icons">favorite</i>
<i class="material-icons">attachment</i>
<i class="material-icons">computer</i>
<i class="material-icons">traffic</i>
</body>
</html>
```

Bootstrap 4 Buttons



Next >

Button Styles

Bootstrap 4 provides different styles of buttons:



Example

```
*
```

```
<button type="button" class="btn">Basic</button>
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-danger">Danger</button>
<button type="button" class="btn btn-dark">Dark</button>
<button type="button" class="btn btn-dark">Dark</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-link">Link</button></button>
```

Try it Yourself »

The button classes can be used on <a>, <button>, or <input> elements:

The button classes can be used on <a>, <button>, or <input> elements:

Example

```
<a href="#" class="btn btn-info" role="button">Link Button</a>
<button type="button" class="btn btn-info">Button</button>
<input type="button" class="btn btn-info" value="Input Button">
<input type="submit" class="btn btn-info" value="Submit Button">
```



Button Outline

Bootstrap 4 provides eight outline/bordered buttons:

Primary Secondary Success Info Warning Danger Dark Light

Example

```
<button type="button" class="btn btn-outline-primary">Primary</button>
<button type="button" class="btn btn-outline-secondary">Secondary</button>
<button type="button" class="btn btn-outline-success">Success</button>
<button type="button" class="btn btn-outline-info">Info</button>
<button type="button" class="btn btn-outline-warning">Warning</button>
<button type="button" class="btn btn-outline-danger">Danger</button>
<button type="button" class="btn btn-outline-dark">Dark</button>
<button type="button" class="btn btn-outline-dark">Dark</button>
<button type="button" class="btn btn-outline-light text-dark">Light</button></button>
</button>
```

Button Sizes

Use the .btn-lg class for large buttons or .btn-sm class for small buttons:



Example

```
<button type="button" class="btn btn-primary btn-lg">Large</button>
<button type="button" class="btn btn-primary">Default</button>
<button type="button" class="btn btn-primary btn-sm">Small</button>
```



Block Level Buttons

Add class .btn-block to create a block level button that spans the entire width of the parent element.

Full-Width Button

Example

<button type="button" class="btn btn-primary btn-block">Full-Width Button



Active/Disabled Buttons

A button can be set to an active (appear pressed) or a disabled (unclickable) state:

Active Primary

Disabled Primary

The class .active makes a button appear pressed, and the disabled attribute makes a button unclickable. Note that <a> elements do not support the disabled attribute and must therefore use the .disabled class to make it visually appear disabled.

Example

```
<button type="button" class="btn btn-primary active">Active Primary</button>
<button type="button" class="btn btn-primary" disabled>Disabled Primary</button>
<a href="#" class="btn btn-primary disabled">Disabled Link</a>
```



Bootstrap 4 Image Shapes

Rounded Corners:



Circle:



Thumbnail:



Rounded Corners

The .rounded class adds rounded corners to an image:



Circle

The .rounded-circle class shapes the image to a circle:

Example



Thumbnail

The .img-thumbnail class shapes the image to a thumbnail (bordered):

Example

```
<img src="cinqueterre.jpg" class="img-thumbnail" alt="Cinque Terre">
```



Aligning Images

Float an image to the right with the .float-right class or to the left with .float-left:





```
<img src="paris.jpg" class="float-left">
<img src="paris.jpg" class="float-right">
```



Centered Image

Center an image by adding the utility classes .mx-auto (margin:auto) and .d-block (display:block) to the image:





Responsive Images

Images come in all sizes. So do screens. Responsive images automatically adjust to fit the size of the screen.

Create responsive images by adding an .img-fluid class to the tag. The image will then scale nicely to the parent element.

The .img-fluid class applies max-width: 100%; and height: auto; to the image:

Example

```
<img class="img-fluid" src="img_chania.jpg" alt="Chania">
```



Bootstrap 4 Basic Table

A basic Bootstrap 4 table has a light padding and horizontal dividers.

The .table class adds basic styling to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

```
<thead>
 Firstname
  Lastname
  Email
 </thead>
John
  Doe
  john@example.com
 Mary
  Moe
  mary@example.com
 July
  Dooley
  july@example.com
```

Striped Rows

The .table-striped class adds zebra-stripes to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Bordered Table

The .table-bordered class adds borders on all sides of the table and cells:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Hover Rows

The .table-hover class adds a hover effect (grey background color) on table rows:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Black/Dark Table

The .table-dark class adds a black background to the table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Dark Striped Table

Combine .table-dark and .table-striped to create a dark, striped table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Hoverable Dark Table

The .table-hover class adds a hover effect (grey background color) on table rows:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Small table

The .table-sm class makes the table smaller by cutting cell padding in half:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Responsive Tables

The .table-responsive class adds a scrollbar to the table when needed (when it is too big horizontally):

<div class="table-responsive"></div>	

#	Firstname	Lastname	Age	City	Country	Sex	Example	Example	Example	Example
1	Anna	Pitt	35	New York	USA	Female	Yes	Yes	Yes	Yes

